THE LOW TEMPERATURE MICROGRAVITY PHYSICS FACILITY: PROGRESS AND STATUS

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The Jet Propulsion Laboratory (JPL) is developing the Low Temperature Microgravity Physics Facility (LTMPF). The LTMPF is a multiple user and multiple flight facility that will provide a long duration low temperature environment for performing state of the art experiments at the International Space Station (ISS). During each mission, two distinct primary experiments will be accommodated. Secondary experiments utilizing the hardware built for the primary experiments will also be accommodated during each mission. Over the past year, much progress has occurred on the LTMPF as the flight hardware has started to be built. Also, many changes have occurred. Last summer, the initial flight of the LTMPF was delayed until early 2008 by a 2 year slip in the delivery of the Japanese Experiment Module (KIBO) Exposed Facility of the ISS, where the LTMPF will be attached when it flies. Finally, the experiments that will fly as part of the first mission have been changed so that one Gravitational and Relativistic experiment and one Low Temperature Condensed Matter experiment will fly on each flight of the LTMPF. Therefore, the experiments that will fly on the initial mission of the LTMPF will be DYNAMX and the Superconducting Microwave Oscillator Experiment (SUMO).